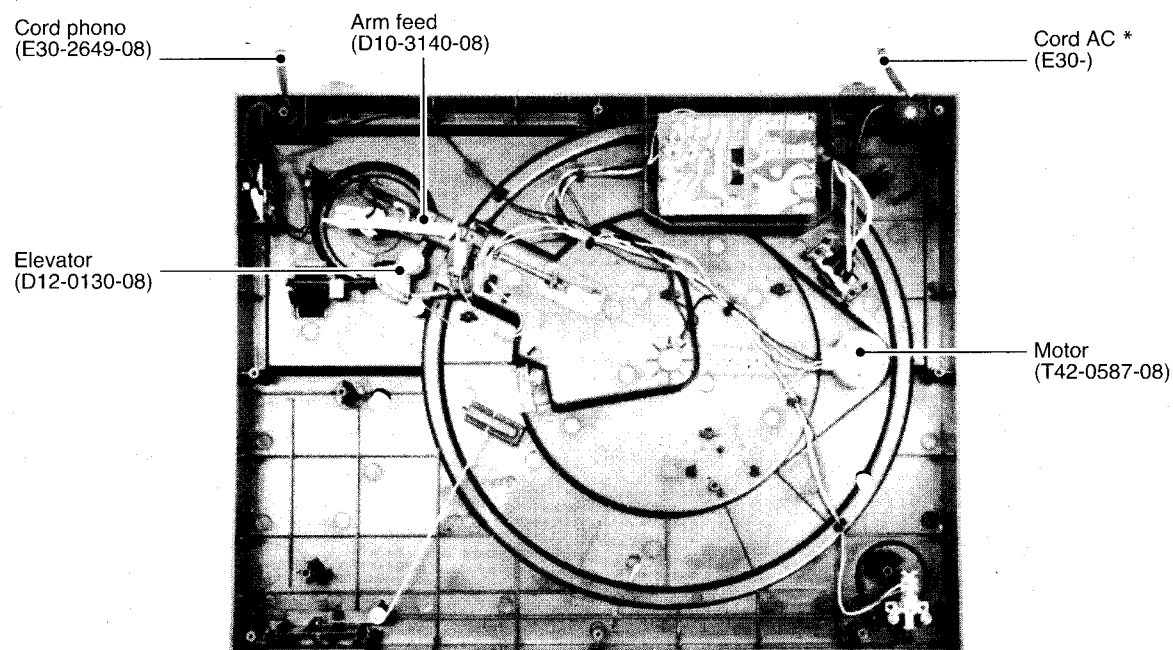
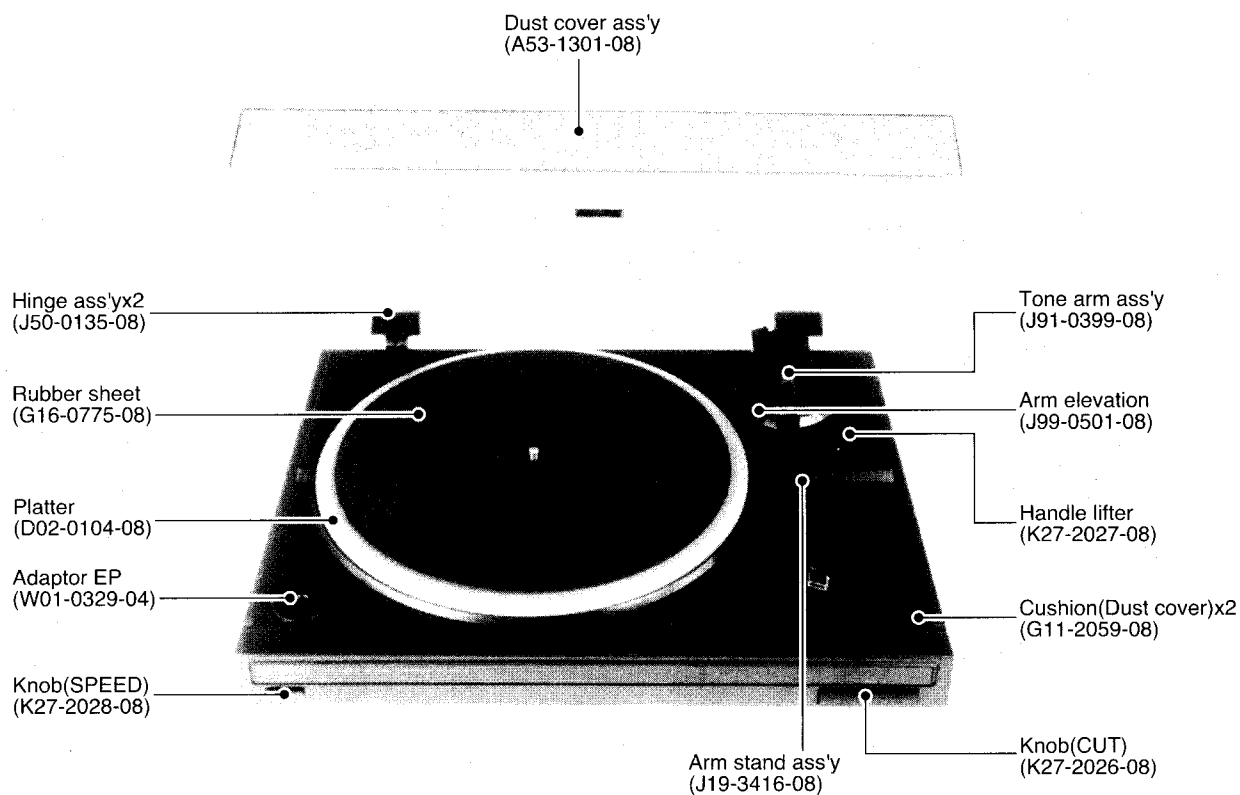


# KD-291R/291RC

## SERVICE MANUAL

# KENWOOD

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\* Refer to parts list on page 8 .

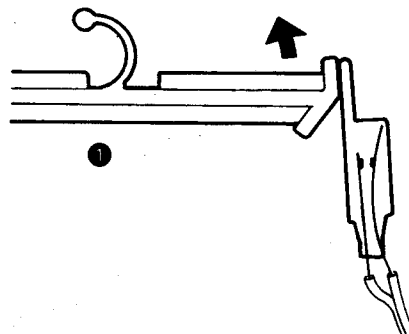
# KD-291R/291RC

## MECHANISM DESCRIPTION

### Operation

#### 1. Motor ON

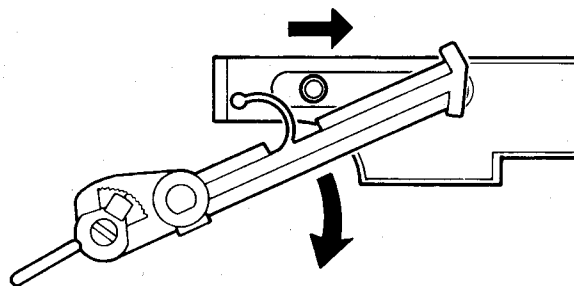
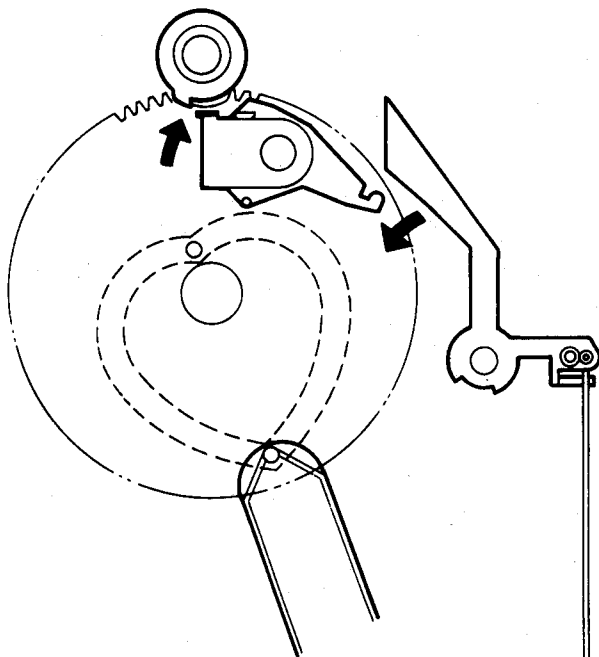
When the tonearm is moved down on the surface of the record, the feed arm ❶ moves in the direction of an arrow so that SW2 turns ON to start the motor.



#### 2. Tonearm Return

When the tonearm arrives at the end of the record, an operation as shown below is performed. Thus, the gear of the center shaft is engaged with the ring gear to start counterclockwise rotation.

By the ring gear ass'y alone, the tonearm actuator moves in the direction of arrows to return the tonearm.



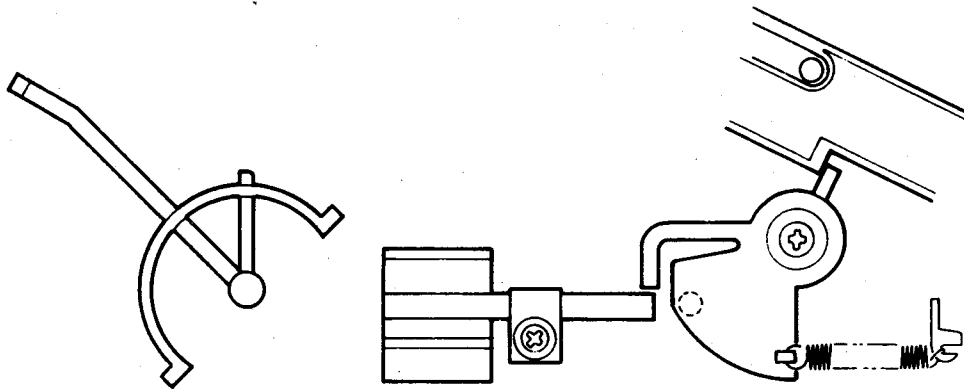
Same operation with arm

# KD-291R/291RC

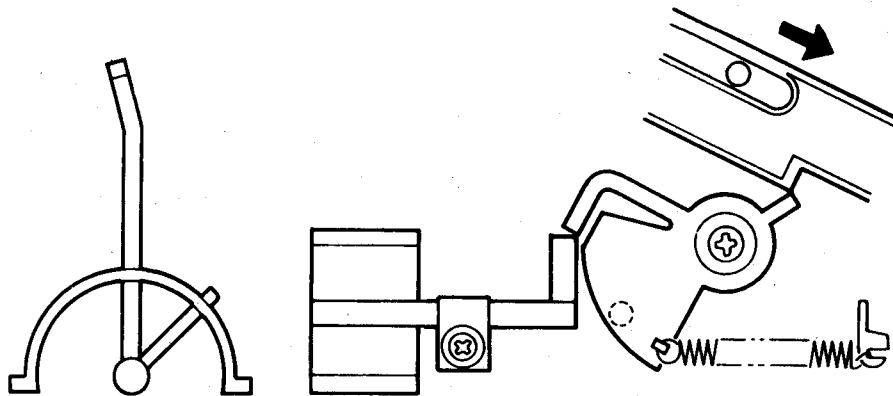
## MECHANISM DESCRIPTION

### 3. Cueing

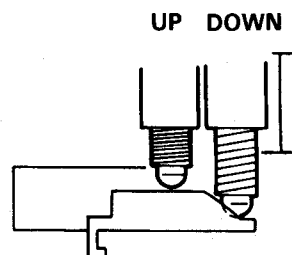
- For manual return, the lifter and the elevator work.
- For auto return, the tonearm actuator and the elevator work.



— down —



— up —



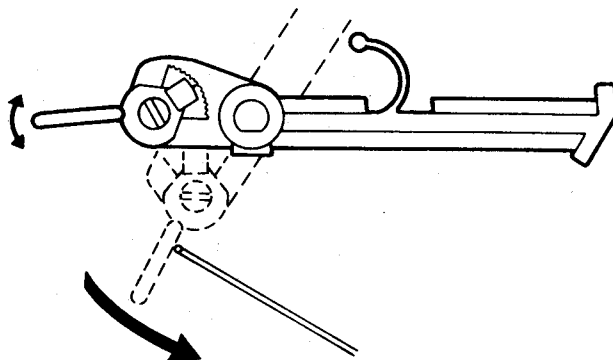
# KD-291R/291RC

## ADJUSTMENT / REGLAGES / ABGLEICH

### ADJUSTMENT

#### 1. Auto-return position adjustment

For this, adjust the cam as shown on the right.  
(After adjustment, lock it.)



#### 2. Speed adjustment

First, adjust the 33 RPM by VR1, then the 45 RPM by VR2.

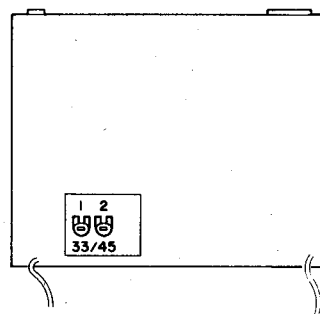
### REGLAGES

#### 1. Ajustement de la position de retour automatique

Pour ceci, ajuster la came comme indiqué sur la droite.  
(Après l'ajustement, la verrouiller.)

#### 2. Ajustement de la vitesse

D'abord ajuster les 33 tours avec RV1 puis les 45 tours avec RV2.



### ABGLEICH

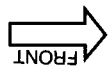
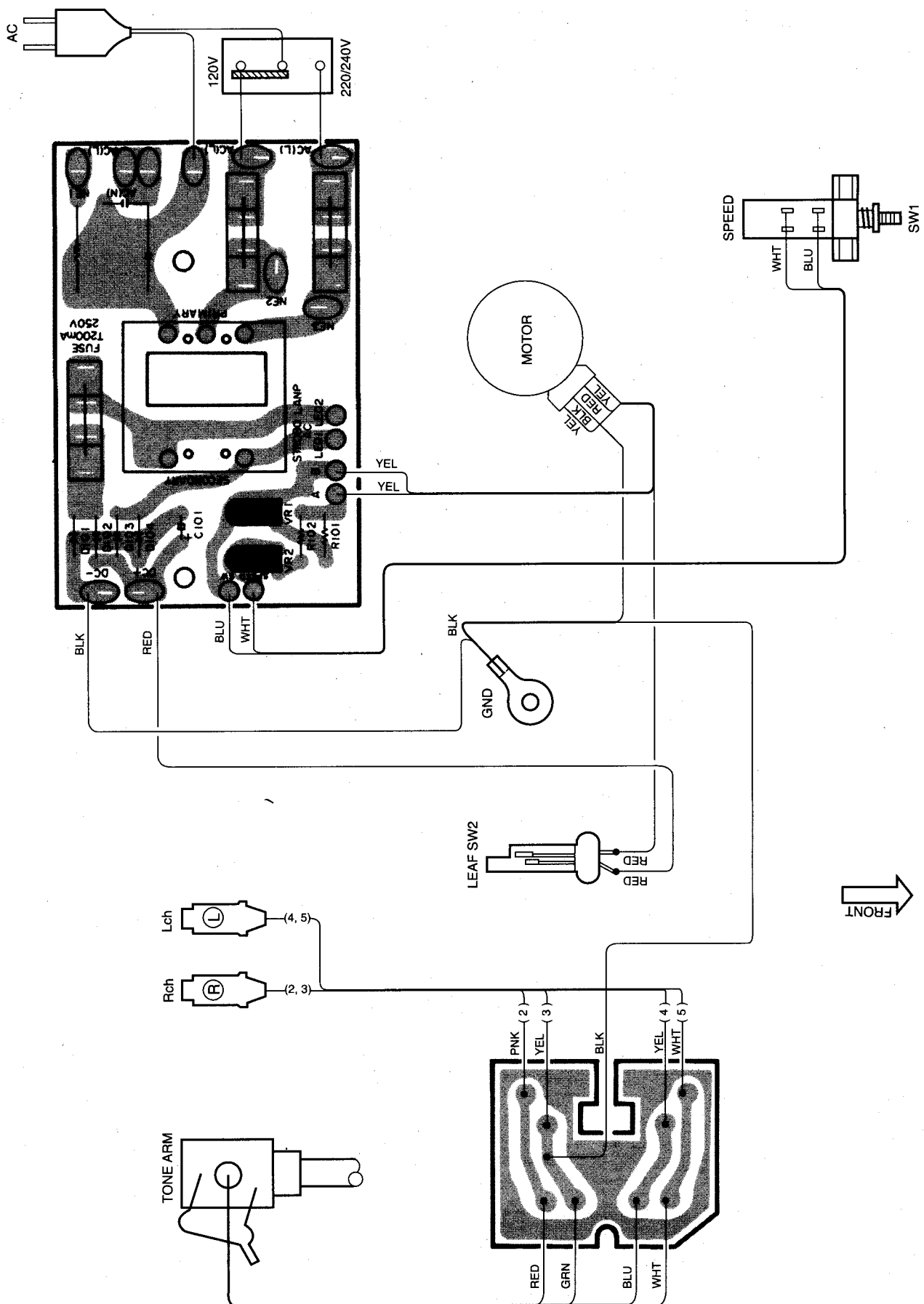
#### 1. Einstellung der automatischen Rückkehrposition

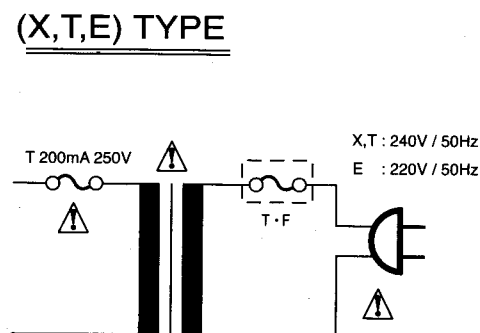
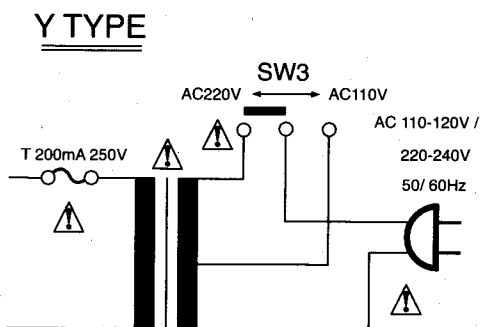
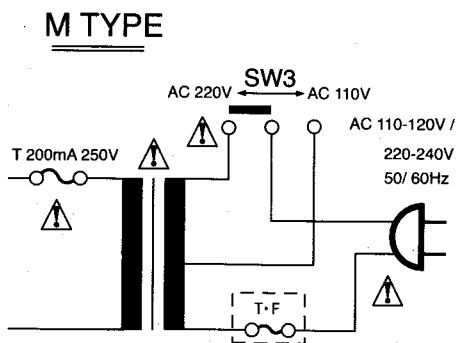
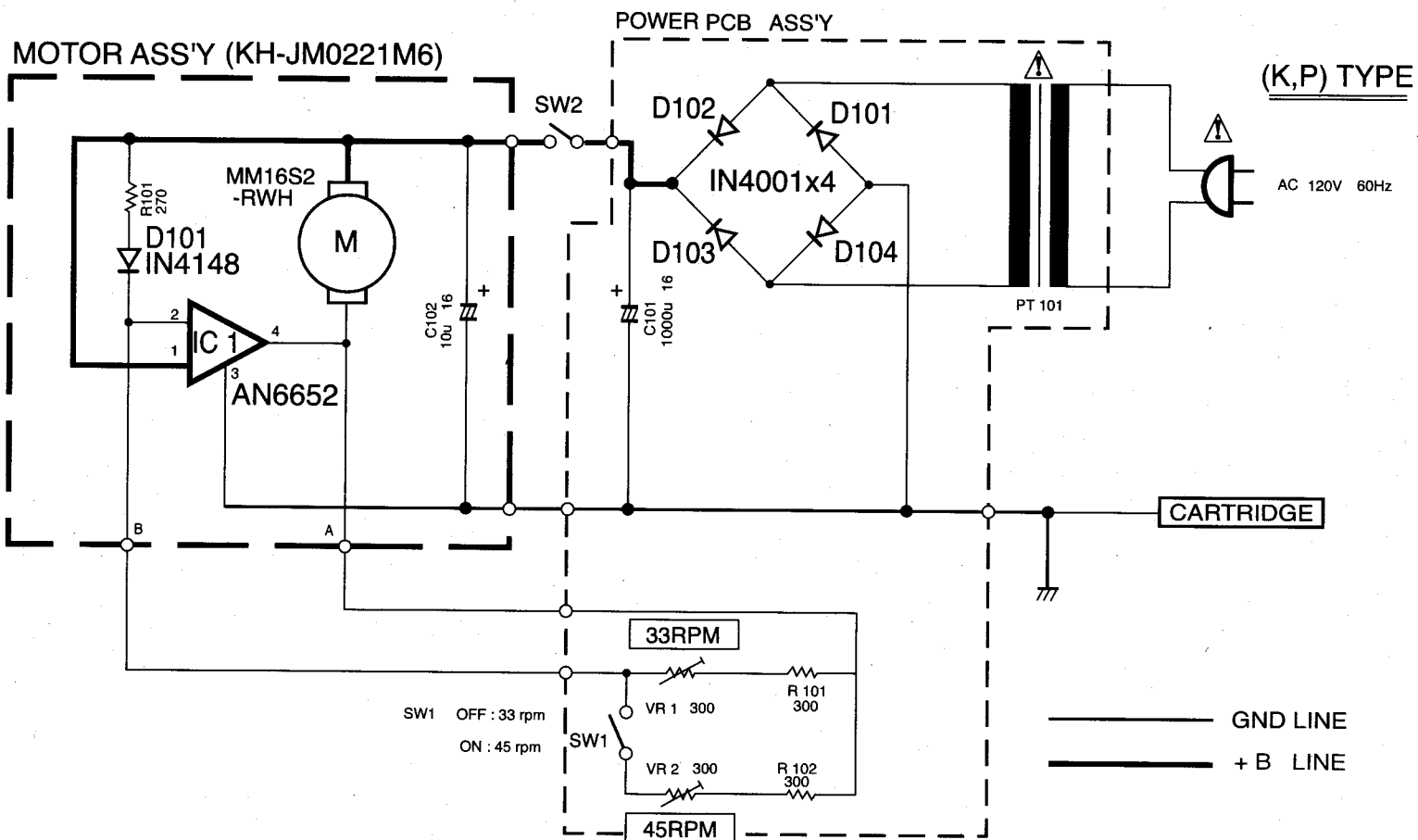
Hierfür den Nocken wie rechts abgebildet einstellen.  
(Nach der Einstellung arretieren.)

#### 2. Drehzahl-Einstellung

Zuerst 33 Upm mit VR1 und dann 45 Upm mit VR2 einstellen.

# PC BOARD (Component side view)





**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measured with a high impedance voltmeter at 33-1/3 r.p.m. mode. Values may vary slightly due to variations between individual instruments or/and units.

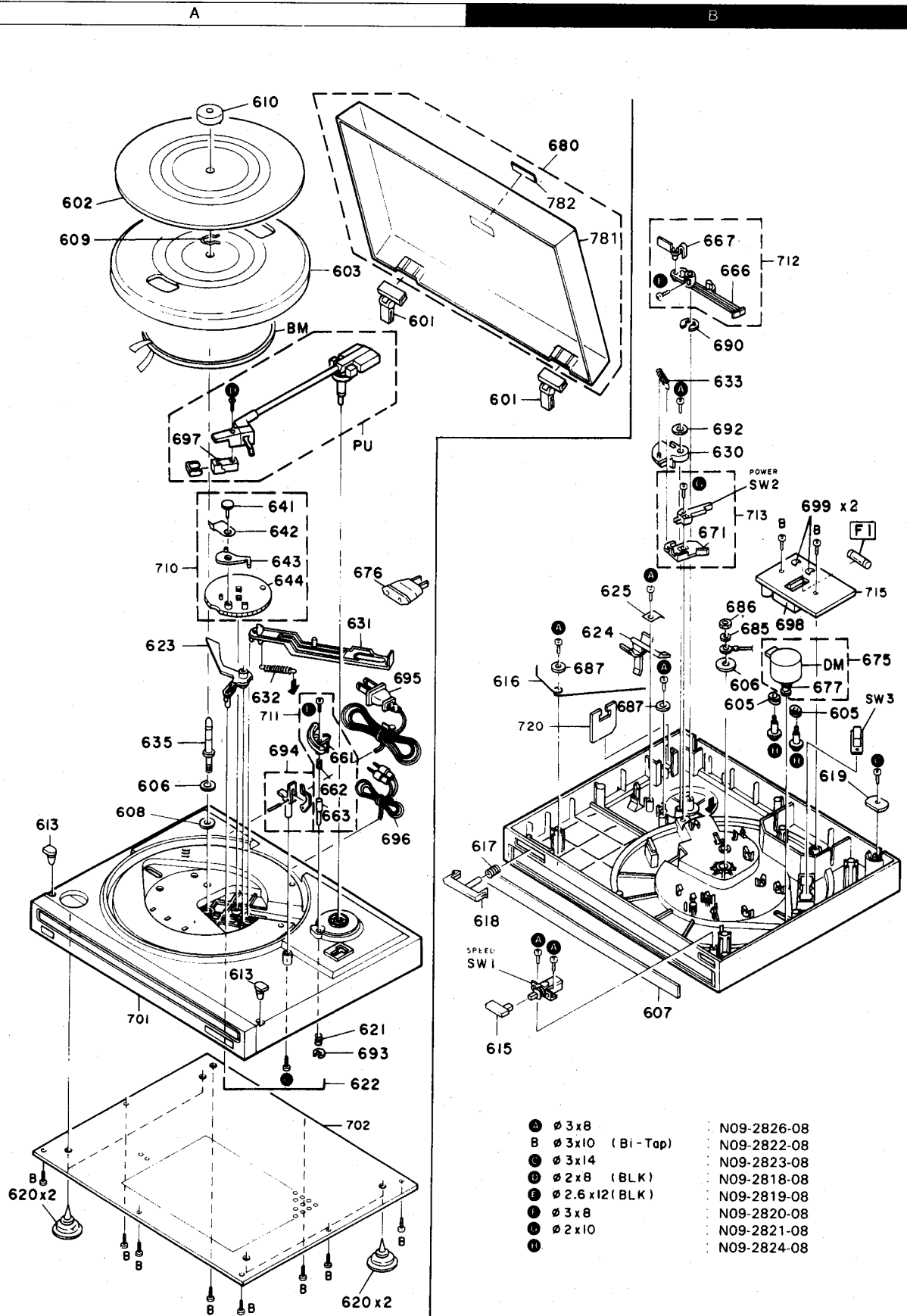
**KD-291R/291RC**

Y21-3250-10

**KENWOOD**

# KD-291R/291RC

## EXPLODED VIEW



\* New Parts  
Parts without **Parts No.** are not supplied.  
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.  
Teile ohne **Parts No.** werden nicht geliefert.

①

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
<b>KD-291R/KD291RC</b>						
601	1A,1B	*	J50-0135-08	HINGE ASSY		
602	1A	*	G16-0775-08	RUBBER SHEET		
603	1A	*	D02-0104-08	PLATTER		
605	2B	*	G11-2058-08	CUSHION(MOTOR)		
606	2A,2B	*	N19-1257-08	WASHER PLAIN		
607	3B	*	B03-2730-08	PLATE FRONT		
608	2A	*	N19-1258-08	POLY WASHER		
609	1A	*	G09-0615-08	STOPPER PLATTER		
610	1A	*	W01-0329-04	ADAPTER EP		
613	2A,3A	*	G11-2059-08	CUSHION(DUST COVER)		
615	3B	*	K27-2028-08	KNOB(SPEED)		
616	2B	*	D10-3137-08	LINK CUT		
617	2B	*	G01-3357-08	SPRING BUTTON		
618	2B	*	K27-2026-08	KNOB(CUT)		
619	2B	*	J19-3414-08	STOPPER CORD		
620	3A	*	J02-1063-08	FOOT RUBBER		
621	3A	*	G01-3358-08	SPRING(ELEVATION)		
622	3A	*	D10-3136-08	LINK		
623	2A	*	D10-3138-08	LEVER REJECT		
624	2B	*	K27-2027-08	HANDLE LIFTER		
625	2B	*	J21-5730-08	HOLDER LEVER		
630	1B	*	D12-0130-08	ELEVATION		
631	2A	*	D10-3139-08	ARM ACTUATION		
632	2A	*	G01-3359-08	SPRING(ACTUATING)		
633	1B	*	G01-3360-08	SPRING(ELEVATOR)		
635	2A	*	D21-1652-08	CENTER SHAFT		
641	2A	*	D32-0194-08	LOCK CLUTCH		
642	2A	*	D19-0263-08	PLATE CLUTCH		
643	2A	*	D19-0264-08	GUIDE CLUTCH		
644	2A	*	D13-0940-08	GEAR RING		
661	2A	*	J99-0501-08	ARM ELEVATION		
662	2A	*	G01-3361-08	SPRING(ADJUST)		
663	2A	*	D21-1653-08	SHAFT(ELEVATION)		
666	1B	*	D10-3140-08	ARM FEED		
667	1B	*	D21-1654-08	CAM ADJUST		
671	2B	*	J19-3415-08	HOLDER S/W		
675	2B	*	T42-0586-08	MOTOR PULLEY ASSY		
676	2A	*	E03-0115-08	AC PLUG ADAPTER		
677	2B	*	D15-0315-08	PULLEY MOTOR		
680	2B	*	A53-1301-08	DUST COVER ASSY		
685	2B	*	N16-0040-46	WASHER SPRING		
686	2B	*	N10-2040-46	NUT		
687	2B	*	N19-1259-08	WASHER PLAIN		
690	1B	*	N29-0269-08	E-RING		
692	1B	*	N19-1260-08	WASHER PLAIN		
693	3A	*	N29-0207-08	E-RING		
694	2A	*	J19-3416-08	ARM STAND ASSY		
695	2A	*	E30-2645-08	CORD AC		
695	2A	*	E30-2646-08	CORD AC		
695	2A	*	E30-2647-08	CORD AC		
696	2A	*	E30-2649-08	CORD PHONO		
697	1A	*	T21-0157-08	CARTRIDGE(V-76)		
698	2B	*	L07-0320-08	POWER TRANSFORMER		

L: Scandinavia K: USA P: Canada R: Mexico C: China I: Malaysia  
Y: PX(Far East,Hawaii) T: England E: Europe G: Germany V: China(Shanghai)  
Y: AAFES(Europe) X: Australia Q: Russia H: Korea M: Other Areas  $\Delta$  indicates safety critical components.

\* New Parts  
Parts without **Parts No.** are not supplied.  
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.  
Teile ohne **Parts No.** werden nicht geliefert.

②

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
698	2B	*	L07-0321-08	POWER TRANSFORMER		
698	2B	*	L07-0322-08	POWER TRANSFORMER		
698	2B	*	L07-0323-08	POWER TRANSFORMER		
698	2B	*	L07-0324-08	POWER TRANSFORMER		
699	2B	*	J13-0078-08	FUSE CLIP		
-			B46-0092-03	WARRANTY CARD		
-			B46-0094-03	WARRANTY CARD		
-			B46-0095-03	WARRANTY CARD		
-			B46-0096-13	WARRANTY CARD		
-			B46-0121-03	WARRANTY CARD		
-			B46-0122-13	WARRANTY CARD		
-		*	B58-0513-08	CAUTION CARD		
-		*	B59-0167-08	SUB-INSTRUCTION MANUAL(E/F/D)		
-		*	B59-0168-08	SUB-INSTRUCTION MANUAL(E/S/C)		
-		*	B60-0449-08	INSTRUCTION MANUAL(ENGLISH)		
-		*	B60-0450-08	INSTRUCTION MANUAL(FRENCH)		
-		*	B60-0451-08	INSTRUCTION MANUAL(GERMANY)		
-		*	B60-0452-08	INSTRUCTION MANUAL(E/S/C)		
-		*	H10-3840-08	POLYSTYRENE FOAMED FIXTURE		
-			H25-0232-04	P.E.BAG/MANUAL		
-		*	H25-0641-08	P.E.BAG/SET		
-		*	H25-0642-08	P.E.BAG		
-		*	H50-0061-08	ITEM CARTON BOX(KD-291RC)		
-		*	H50-0062-08	ITEM CARTON BOX(KD-291R)		
-		*	N09-2826-08	SCREW		
-		*	N09-2822-08	SCREW		
-		*	N09-2823-08	SCREW		
-		*	N09-2818-08	SCREW		
-		*	N09-2819-08	SCREW		
-		*	N09-2820-08	SCREW		
-		*	N09-2821-08	SCREW		
-		*	N09-2824-08	SCREW MOTOR SETTING		
BM	1A	*	D16-0317-08	BELT RUBBER		
PU	1A	*	J91-0399-08	TONEARM ASSY		
SW1	3B	*	S70-0001-08	S/W(SPEED)		
SW2	2B	*	S74-0002-08	S/W LEAF(POWER)		
SW3	2B	*	S62-0004-08	V/SELECTOR S/W (AC220V/110V)		
DM	2B	*	T42-0587-08	MOTOR		
<b>POWER SUPPLY/CONTROL</b>						
C101			CE04KW1C102J	ELECTRO 1000UF 16WV		
F1	2B	*	F50-0008-08	FUSE (T200MA/250V)		
VR1,2		*	R12-0119-08	TRIMMING POT. 300-OHM,SPEED		
D101-104			1N4001	DIODE		

L: Scandinavia K: USA P: Canada R: Mexico C: China I: Malaysia  
Y: PX(Far East,Hawaii) T: England E: Europe G: Germany V: China(Shanghai)  
Y: AAFES(Europe) X: Australia Q: Russia H: Korea M: Other Areas  $\Delta$  indicates safety critical components.

KD-291R/291RC

PARTS LIST



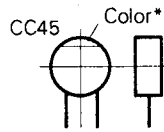
# KD-291R/291RC

## PARTS DESCRIPTIONS

### CAPACITORS

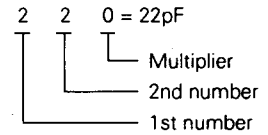
CC 45 TH 1H 220 J  
1 2 3 4 5 6

- 1 = Type ... ceramic, electrolytic, etc. 4 = Voltage rating  
2 = Shape ... round, square, ect. 5 = Value  
3 = Temp. coefficient 6 = Tolerance



#### • Capacitor value

010 = 1pF  
100 = 10pF  
101 = 100pF  
102 = 1000pF = 0.001μF  
103 = 0.01μF



#### • Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = -470 ± 60ppm/°C

#### • Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40 -20	+80 -20	+100 -0	More than 10μF - 10 ~ +50 Less than 4.7μF - 10 ~ +75

#### (Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

#### • Voltage rating

2nd word \ 1st word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	-
3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	-

#### • Chip capacitors

(EX) C C 7 3 F S L 1 H 0 0 0 J  
1 2 3 4 5 6 7  
(Chip) (CH, RH, UJ, SL)

(EX) C K 7 3 F F 1 H 0 0 0 Z  
1 2 3 4 5 6 7  
(Chip) (B, F)

Refer to the table above.

1 = Type  
2 = Shape  
3 = Dimension  
4 = Temp. coefficient  
5 = Voltage rating  
6 = Value  
7 = Tolerance

#### Dimension (Chip capacitors)

Dimension code	L	W	T
Empty	5.6 ± 0.5	5.0 ± 0.5	Less than 2.0
A	4.5 ± 0.5	3.2 ± 0.4	Less than 2.0
B	4.5 ± 0.5	2.0 ± 0.3	Less than 2.0
C	4.5 ± 0.5	1.25 ± 0.2	Less than 1.25
D	3.2 ± 0.4	2.5 ± 0.3	Less than 1.5
E	3.2 ± 0.2	1.6 ± 0.2	Less than 1.25
F	2.0 ± 0.3	1.25 ± 0.2	Less than 1.25
G	1.6 ± 0.2	0.8 ± 0.2	Less than 1.0

### RESISTORS

#### • Chip resistor (Carbon)

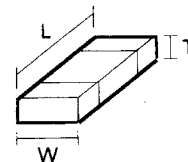
(EX) R K 7 3 E B 2 B 0 0 0 J  
1 2 3 4 5 6 7  
(Chip) (B, F)

#### • Carbon resistor (Normal type)

(EX) R D 1 4 B B 2 C 0 0 0 J  
1 2 3 4 5 6 7

- 1 = Type 5 = Rating wattage  
2 = Shape 6 = Value  
3 = Dimension 7 = Tolerance  
4 = Temp. coefficient

#### Dimension



#### Dimension (Chip resistor)

Dimension code	L	W	T
E	3.2 ± 0.2	1.6 ± 0.2	1.0
F	2.0 ± 0.3	1.25 ± 0.2	1.0
G	1.6 ± 0.2	0.8 ± 0.2	0.5 ± 0.1

#### Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

# KD-291R/291RC

## SPECIFICATIONS

### Motor and turntable

**Drive system**..... Belt-Drive System  
**Motor** ..... DC Servo Motor  
**Speeds** ..... 2 Speeds, 33-1/3 and 45 rpm.

### Tonearm

**Type**..... Integrated Straight Tonearm

### Cartridge

**Type**..... VM type (V-76)  
**Stylus** ..... N-76 with 0.6 mil Diamond  
**Frequency Response**... 20 Hz to 20,000 Hz  
**Output Voltage** ..... 2.5 mV(1,000 Hz, 5.0 cm/sec)  
**Load Impedance**..... 47 kΩ  
**Compliance**.....  $4 \times 10^{-6}$  cm/dyne

### Miscellaneous

**Power Consumption** .... 4W

**Dimensions**..... W: 440 mm (17-5/16")  
H: With Dust Cover: 106 mm  
(4-3/16")  
With out Dust Cover: 92mm  
(3-5/8")  
D: With Dust Cover: 390 mm  
(15-3/8")  
With out Dust Cover: 348 mm  
(13-11/16")

**Weight (Net)** ..... 2.9 Kg (6.4 lb)

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KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

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KENWOOD poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

---

KENWOOD strebt ständige, Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

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### Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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